

### **REMARKS/ARGUMENT**

Claims 1, 18 and 34 stand rejected under 35 U.S.C. 102(e) as being anticipated by Warwar et al., U.S. Patent No. 6,738,922. Applicants respectfully traverse this rejection, as set forth below.

In order that the rejection of Claims 1, 18 and 34 be sustainable, it is fundamental that "each and every element as set forth in the claim be found, either expressly or inherently described, in a single prior art reference." Verdegall Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See also, Richardson v. Suzuki Motor Co., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989), where the court states, "The identical invention must be shown in as complete detail as is contained in the ... claim".

Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Independent Claim 1 requires and positively recites, a transmit filter for generating an **oversampled signal from a stream of data symbols generated responsive to a symbol clock**, comprising: "circuitry for receiving the data **symbol stream**", "**phase tracking circuitry**, responsive to a reference clock **generated independently from the symbol clock**, **for maintaining phase information relative to the symbol clock**" and "**sample generating circuitry for generating samples** responsive to said phase information".

Independent Claim 18 requires and positively recites, a method of generating an **oversampled signal from a stream of data symbols generated responsive to a symbol clock**, comprising the steps of: "receiving the data symbol stream", "maintaining phase information relative to the **symbol clock** in response to a reference clock generated

**independently from the symbol clock**” and “**generating samples** responsive to said phase information and said reference clock”.

Independent Claim 34 requires and positively recites, a transmit filter for generating an **oversampled signal from a stream of data symbols** generated responsive to a **symbol clock**, comprising: “circuitry for receiving the data **symbol stream**”, “phase tracking circuitry, responsive to a reference clock, for maintaining phase information relative to the **symbol clock**” and “**sample generating circuitry** for selectively generating **samples** responsive to said phase information and said **symbol clock**”.

In contrast, Warwar discloses a clock recovery unit (400) which is used to recover a clock signal (426) from a transmitted data signal (418)(Abstract, lines 1-2). The clock recovery unit (400) includes a frequency detection circuit and a phase locked loop (PLL) circuit to detect phase and frequency differences between a reference clock signal (428) and a variable clock signal (426), and to adjust the variable clock frequency to recover a clock signal that corresponds to the transmitted data signal (col. 2, lines 19-24).

Nowhere, however, does Warwar teach or suggest that its variable data signal (418) is a stream of data “symbols” AND further that such data “symbols” are generated in response to a “symbol” clock. As such, Warwar fails to teach or suggest, a transmit filter for generating an oversampled signal from **a stream of data symbols** generated **responsive to a symbol clock**, comprising: “circuitry for receiving the data **symbol stream**”, as required by Claim 1, OR “a method of generating an oversampled signal **from a stream of data symbols** generated responsive to a **symbol clock**”, as required by Claim 18, OR “a transmit filter for generating an oversampled signal **from a stream of data symbols** generated responsive to a **symbol clock**, comprising: “circuitry for receiving the data **symbol stream**”, as required by Claim 34.

Moreover, there is no teaching or suggestion in Warwar that clock recovery unit 400 comprises phase tracking circuitry for maintaining phase information relative to the symbol clock. Both the phase detector 402 and phase/frequency detector 412 in Warwar receive the variable clock 426, which is the output of the clock recovery unit 400. Since these two detectors 402 and 412 are part of a closed loop system within the clock recovery unit 400, the phase information cannot be maintained for the intended mode of operation in Warwar. At best, the phase information could be forced to settle to a certain value (such as zero) such that a pair of two clock signals are aligned. As such, Warwar further fails to teach or suggest, “phase tracking circuitry, responsive to a reference clock generated independent from the symbol clock, **for maintaining phase information** relative to the symbol clock”, as required by Claim 1, OR “**maintaining phase information** relative to the symbol clock in response to a reference clock generated independently from the symbol clock”, as required by Claim 18, OR “phase tracking circuitry, responsive to a reference clock, **for maintaining phase information** relative to the symbol clock”, as required by Claim 34.

Similarly, there is no teaching or suggestion in Warwar that clock recovery unit 400 generates “samples” AND that such samples are in oversampled signal. As such, Warwar further fails to teach or suggest, “**sample generating circuitry for generating samples** responsive to said phase information”, as required by Claim 1, OR “**generating samples** responsive to said phase information and said reference clock”, as required by Claim 18, OR “**sample generating circuitry** for selectively generating **samples** responsive to said phase information and said **symbol clock**”, as required by Claim 34. Accordingly Warwar does not teach or suggest all of the elements in each of claims 1, 18 and 34. As such, the 35 U.S.C. 102(e) rejection of Claims 1, 18 and 34 is improper and must be withdrawn.

In the event Examiner decides to maintain the rejection as set forth, Applicants respectfully request Examiner to specifically identify which element in Warwar is being equated to each element in each of claims 1, 18 and 34. As the current rejection stands, Applicants cannot determine whether Examiner has considered all of the words of each claim, as is required by law.

Applicants appreciate the Examiner's determination that Claims 2-17, 19-33, 35 and 36 would be allowable if amended to included the limitations of the base claim and any intervening claims, but believe in light of the above arguments that these claims are allowable in their present form. Claims 1-36 stand allowable over the references of record. Applicants respectfully request allowance of the application as the earliest possible date.

Respectfully submitted,



/ Ronald O. Neerings /  
Reg. No. 34,227  
Attorney for Applicants

TEXAS INSTRUMENTS INCORPORATED  
P.O. BOX 655474, M/S 3999  
Dallas, Texas 75265  
Phone: 972/917-5299  
Fax: 972/917-4418